

CLAIMS

1. Clutch arrangement in a transmission having two axially and radially adjacent multi-disc clutches (B, E) in which the inner discs (23) of the radially inner clutch (E) are situated upon an inner disc carrier (37) and the outer discs (21) of the radially outer clutch (B) upon an outer disc carrier (38), in which said inner discs (22) of said radially outer clutch (B) and said outer discs (24) of said radially inner clutch (E) are situated upon a common disc carrier (9), in which the respective inner discs and outer discs of said two clutches (B, E) form axially alternatively disc sets (39, 40) situated side by side, in which with each disc set (39, 40) is associated one actuating piston (10, 17) of servo devices actuatable by pressure medium for axial compression of said disc sets (39, 40), both servo devices being disposed so that both clutches (B, E) be closely actuatable in the same direction (35) and in which said discs (23, 24) of said radially inner disc set (40) can be axially pressed against a guard ring (16) fastened on said common disc carrier (9), characterized in that said discs (21, 22) of said radially outer disc set (39) can be axially pressed against a contact section (7) of said common disc carrier (9) which consists of one radially outwardly pointing end piece of said common disc carrier (9).

2. Clutch arrangement according to claim 1, characterized in that said common disc carrier (9) is a sheet metal shaped part in which the contact section (7) is integral part thereof and is formed by a deforming process.

3. Clutch arrangement according to at least one of claim 1 or 2, characterized in that said disc sets (39, 40) are each axially limited on their side pointing away from said pistons (10, 17) by an end disc (13, 15).

4. Clutch arrangement according to at least one of the preceding claims, characterized in that said guard ring (16) is secured in a receiving groove (14) on said common disc carrier (9).

5. Clutch arrangement according to claim 4, characterized in that said receiving groove (14) consists of radial openings spaced relative each other which are made peripherally distributed on said common disc carrier (9).

6. Clutch arrangement according to claim 5, characterized in that said openings that form said receiving groove (14) are shaped by material recesses in

said common disc carrier (9) through which the sheet metal pieces designated as (20) of said common disc carrier (9) point radially outwardly.

7. Clutch arrangement according to claim 6, characterized in that the section of said clutch discs, particularly of the inner discs (22) of said radially outer clutch, the same as the radial extension of said embossing (20) is selected so that on the radial outer side of said common disc carrier (9) there be sufficient space for the end disc (13) of said radially outer clutch (B) wholly or partly placed over the area of the material recesses or receiving groove (14).

8. Clutch arrangement according to claim 5, characterized in that said openings that form said receiving groove (14) are cuttngly produced as a circular groove interrupted by tooth gaps.

9. Clutch arrangement according to at least one of the preceding claims, characterized in that said contact section (7) of said common disc carrier (9) is shaped so that the stiffness of the latter be positively influenced.

10. Clutch arrangement according to at least one of the preceding claims, characterized in that said contact section (7) of said common disc carrier (9) has on its side pointing axially to said disc set (39) of said radially outer clutch (B) contact nubs (12) on which abuts said end disc (13) of said disc set (39).

11. Clutch arrangement according to at least one of the claims 1 to 9, characterized in that said contact section (7) of said common disc carrier (9), on its side axially pointing to said disc set (39) of said radially outer clutch (B), has a contact ring.

12. Clutch arrangement according to at least one of the preceding claims, characterized in that said end disc (13) has on its side axially pointing to said contact section (7) of said common disc carrier (9) a radially beneath said parts are axially overlapped.

13. Clutch arrangement according to claim 11 or 12, characterized in that said contact nubs (12) of said contact ring or said step (59) are designed so that component parts of said common disc carrier (9) situated radially beneath said parts are axially overlapped.

14. Clutch arrangement according to at least one of claims 1 to 13, characterized in that the transmission is an automatic transmission.

15. Clutch arrangement according to at least one of claims 1 to 13, characterized in that the transmission is an automated selector transmission, particularly in the design of a double clutch transmission.